

## Where can I get more information?

This flyer presents a summary of the primary results of ATSDR's investigations. More detailed information is available in a series of public health assessments published by ATSDR. These documents are available from records repositories located at the Biblioteca Publica, the Vieques Conservation and Historical Trust, and at the University of Puerto Rico's School of Public Health.

For more information call:

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or

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ATSDR Regional Representative

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Residents can also call ATSDR toll-free at **1-888-42-ATSDR (1-888-422-8737)**, visit the ATSDR Web site at [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov), or e-mail ATSDR at [atsdr@cdc.gov](mailto:atsdr@cdc.gov).

*The topographic layer of the map was obtained from "Air Dispersion Modeling and Related Analysis for Inner Range Operations, Vieques, Puerto Rico," February 2000.*



# A Summary of ATSDR's Environmental Health Evaluations for the Isla de Vieques Bombing Range

Vieques, Puerto Rico  
November 2003

## What is ATSDR?

The mission of the Agency for Toxic Substances and Disease Registry (ATSDR) is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances.

## Why did ATSDR come to Vieques?

In May 1999, an island resident asked ATSDR to evaluate whether any health problems in Vieques residents might be associated with potential releases of hazardous substances from military training activities on the island. These activities included live bombing exercises conducted by the U.S. Navy. The Navy owned approximately one-half of Vieques until May 2003.

The bombing exercises occurred in an area of about 900 acres on the eastern end of Vieques, known as the Live Impact Area. The Navy ceased its live bombing exercises in April 1999, but conducted exercises with practice bombs from May 2000 to May 2003. Residents have voiced concern that contaminants from the bombing could travel from the Live Impact Area to the areas where they live.

## How did ATSDR address the residents' concerns?

Teams of ATSDR scientists and staff have visited Vieques more than 10 times. During these visits, ATSDR toured the areas owned by the Navy, met with Vieques residents and officials to identify health concerns, and collected relevant data and site information. ATSDR also visited the main island of Puerto Rico to meet with scientists and government officials and to gather information from them.

ATSDR identified the following ways residents living on Vieques could potentially be exposed to contamination:

- Drinking water.
- Contacting soil.
- Eating seafood.
- Breathing air.

ATSDR evaluated each of these exposure pathways in a separate public health assessment. This flyer briefly summarizes ATSDR's findings.



# Groundwater Pathway

- Navy training activities at the former bombing range have not affected the drinking water supplies on Vieques.
- Most of the residents of Vieques receive their drinking water from the mainland of Puerto Rico through an underwater pipeline.
- It is not safe for children and pregnant women to drink water from Well 3-7 due to high levels of nitrate and nitrite from a local source.
- Groundwater from the former Live Impact Area cannot move to areas where groundwater wells are located.

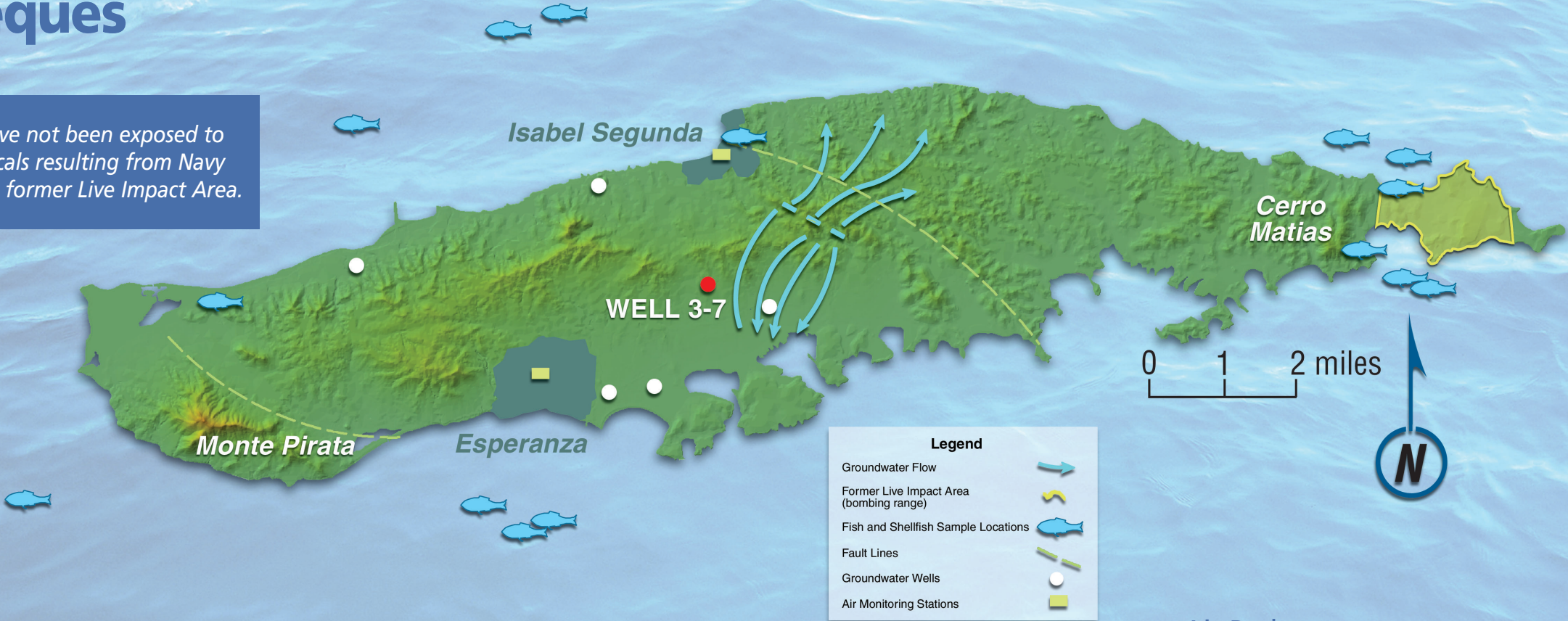


# Fish and Shellfish Pathway

- It is safe to eat seafood from the coastal waters and near-shore lands on Vieques, including fish and shellfish from areas north and south of the former Live Impact Area.
- Several metals were detected in fish and shellfish collected around Vieques. However, ATSDR concluded that the metal concentrations were too low to be of health concern, even if a person ate fish or shellfish every day for 70 years.
- Explosive compounds were not detected in any of the edible fish and shellfish that were sampled from Vieques.

# Isla de Vieques

Residents of Vieques have not been exposed to harmful levels of chemicals resulting from Navy training activities at the former Live Impact Area.



# Soil Pathway

- Touching or incidentally ingesting the soil on Vieques would not cause harmful health effects.
- The protestors who lived on the former Live Impact Area from April 1999 to May 2000 were not exposed to harmful levels of chemicals in the soil.
- Navy training activities have elevated the levels of some metals in the soil on the former Live Impact Area, however, the levels are too low to be of health concern.



# Air Pathway

- The air does not contain harmful levels of chemicals.
- The residents of Vieques have been exposed to contaminants released during the Navy's military training exercises, however, the estimated exposures are lower than levels known to be associated with harmful health effects.
- Airborne dust and contaminants released during training activities at the former Live Impact Area disperse to extremely low levels before ever reaching the residents of Vieques.